

REMARKS

Claims 1-17 are currently pending in this application. In a March 22, 2004 Office Action, the Examiner rejected claims 1-9, 12-15, and 17, and objected to claims 10, 11, and 16 as being dependent on a rejected base claim, but otherwise allowable. The applicant respectfully thanks the Examiner for the indication of allowable subject matter. The applicant respectfully traverses the rejections.

In the action, the Examiner rejected claims 1-8 under 35 U.S.C. § 103(a) as being unpatentable and obvious over United States Patent No. 5,391,356 (“Thorman”) in view of United States Patent No. 4,841,884 (“Engstrom et al.”). The Examiner rejected claims 9, 13-15, and 17 under 35 U.S.C. § 103(a) as being unpatentable and obvious over Thorman in view of United States Patent 4,309,948 (“Zielinski”).

Referring first to the Thorman, Thorman at most discloses a fluidized bed reactor. Thorman further discloses that the gas, air or the like, is directed into the reactor from distributor assemblies (12, 14, and 16) supported on the inner wall (40) of the vessel at circumferentially spaced apart locations in a radially inwardly projecting manner for distribution of gas into the bed of the particles. Therefore, as the Examiner admits, Thorman does not disclose “a plenum surrounded by an air diffuser to direct the air to the bottom of the fluidized bed.”

The Examiner relies on Engstrom et al. for this portion. However, at column 1, lines 40-60, Thorman recites:

Various attempts have been made to overcome problems of particle attrition and plate erosion. One approach is to expand the flow of the fluid from the opening within larger diameter shrouds or diffusion tubs so that the velocity is reduced before the gas reaches the bed. US Pat. No. 3,29,793 to Mallison et al. describes several diffusion tubes for this purpose. However, diffusion tubes of the type shown in the '793 patent are of limited usefulness in small diameter reactors or high velocity fluidized beds. They also tend to

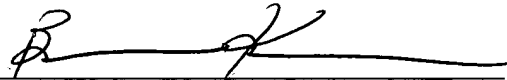
be relatively long, which is undesirable in many cases because of the extra space and material required to accommodate the length of the tubes. In addition, if the tubes or shrouds are of insufficient length, the tubes or shrouds are still susceptible to erosion with associated particle attrition, particularly at high gas velocities because the flow is not able to expand across the width of the tube before it reaches the exit opening. This produces low pressure areas adjacent the tube openings causing particles to be drawn into the opening, which are then propelled a thigh speed into the bed against thee tube wall. (emphasis added).

Thus, Thorman specifically teaches away from the present invention and discloses a device that reduces flow velocity. Reducing flow velocity of the drying gases reduces particle and distributor attrition. This reduction in flow velocity causes the Thorman reference to no function in a seed drying capability because the flow reduction significantly reduces or eliminates the ability of Thorman to fluidize a seed bed. Furthermore, with the reduced flow velocity making reducing or eliminating the ability of Thorman to fluidize the seed bed, modifying Thorman to divert a portion of the gas flow to remove dry seeds from the surface of the seed bed would further reduce the ability of Thorman to fluidize the bed. Thus, Thorman is not enabled for the basic device, and modifying Thorman such that a portion of the flow was diverted would further reduce the ability of Thorman to perform the required functions. Thus, one of ordinary skill in the art would not and could not modify Thorman to obtain the present invention.

For all of the foregoing reasons, the applicant respectfully submits that pending claims 1-17 are patentably distinct from the references of record. Withdrawal of the rejections and allowance of the claims is respectfully requested.

No fee is believed due for entry of this paper. If an extension of time under 35 C.F.R. § 1.136 is required to obtain entry of this Amendment, such an extension is requested. If there are fees due under 37 U.S.C. §§ 1.16 or 1.17 which are not otherwise accounted for, please charge our Deposit Account No. 08-2623.

Respectfully submitted this 22th day of June, 2004.

A handwritten signature in black ink, appearing to read 'B. Kinnear', is written over a horizontal line.

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